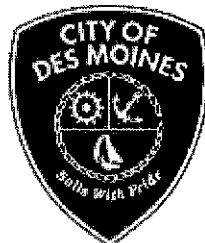


# CITY OF DES MOINES

## STORMWATER MANAGEMENT PROGRAM



Updated March 2013



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**Introduction:**

This document has been prepared to meet the City of Des Moines' Western Washington Phase II Municipal Stormwater Permit requirement for written documentation of the City's Stormwater Management Program (SWMP).

The City's SWMP is intended to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP), meet Washington State, All Known, Available and Reasonable methods of Treatment (AKART) requirements, and protect water quality. This goal will be accomplished by the inclusion of all permit SWMP components and implementation schedules into the City's existing SWMP.

Where the City is already implementing components called for in this permit, the City will continue those actions or activities to the existing extent required, regardless of the schedule called for in this document.

The City will implement an ongoing program for the gathering, tracking, maintaining and using information to evaluate the SWMP development, implementation and permit compliance and to set priorities. This document will be updated annually for submittal with the City's Annual Report to Ecology.

**Section 1: Public Education and Outreach****1.1 Permit Requirements (S5.C.1)**

Section S5.C.1 of the Phase II Permit requires the City to implement an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the City. The goal of the education program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The City's education program may be developed locally and/or regionally.

The minimum measures are:

a. Education and Outreach Program:

The City shall provide an education and outreach program for the area served by its Municipal Separate Storm Sewer System (MS4). The outreach program will be designed to achieve measurable improvements in the target audience's understanding of the problem and what they can do to solve it.

Education and outreach efforts shall be prioritized to target the general public, businesses, homeowners, landscapers, property managers, engineers, contractors, developers, review staff, and land use planners.

b. Measurement:

The City shall measure the understanding and adoption of the targeted behaviors among the targeted audiences. The resulting measurements will be used to direct education and outreach resources most effectively as well as to evaluate changes in adoption of the targeted behaviors.

c. Tracking:

The City will track and maintain records of public education and outreach activities.

## **1.2 Program Description**

a. Education and Outreach Program:

The City's website ([www.desmoineswa.gov](http://www.desmoineswa.gov)) includes information on upcoming activities and links to stormwater documents; educational articles are published in the "City Currents" periodical quarterly; City Council meetings are televised on public television; and brochures on the general impacts of stormwater flows into surface waters are distributed from City Hall and at public events. The City uses the website and brochures to educate the public on the impacts from impervious surfaces by providing information and source control BMPs on topics such as septic system maintenance, oil leak inspection, preservation of plants and trees adjacent to streams, lakes and wetlands, pet control and waste disposal, pesticide reduction, lawn fertilizer reduction, car washing tips and hazardous waste disposal. The goal of public education is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. The City has posted signs for the use of a pet leash and pet waste pick-up along the waterfront to promote public awareness of salmon habitat through the WRIA 9 salmon habitat recovery program. The City provides environmental stewardship actions and opportunities through the "Friends of Des Moines Creek", where citizens are involved in maintaining and enhancing the habitat along Des Moines Creek. There are also opportunities through the WRIA 9 salmon habitat recovery program.

The City provides BMPs on our website and brochures for the use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials. The City website has a link to the King County Health Department for septic system maintenance information and recommendations. During the reporting period, information was included in the City Currents newsletters (sent to each Des Moines address) on West Nile Virus, proper yard waste disposal, stormwater runoff, and car wash kits. Mailings with information on BMPs for businesses were sent to selected business and property owners.

Car wash facilities are recommended and community car wash events are encouraged to use a "Car Wash Kit" available to borrow from the City's Public Works Department free of charge. Starting in 2010, if any carwash event is discovered without using carwash kit, the event could be shut down. The property

owner/manager or business owner/manager that has authorized the use of their property for the charity carwash is also informed that it is unlawful to discharge soapy water to storm drains. During 2012, the carwash kits were checked out 50 times. This has been considered a very successful program. An alternative to a fundraising carwash is the Puget Sound Car Wash Association's (PSCWA) Charity Car Wash Program; this alternative is being introduced to fundraisers to consider. Residents are encouraged to save household hazardous waste for the semi-annual Hazardous Wastemobile events at the Des Moines Marina. The Des Moines Marina has a "Policy & Procedures Manual" with BMPs established to protect and reduce pollutants from entering the storm system.

Impacts of illicit discharge are addressed through the BMPs and the Surface Water Management Program. There is a link on the City website for service request, suggestions, compliments and complaints ([www.desmoineswa.gov/sug/sug.html](http://www.desmoineswa.gov/sug/sug.html)). A City Surface Water Technician responds and documents all reports received. In addition to our illicit discharge program, we now have an reporting number (206-870-6869) and an after-hours hotline number (206-550-5612) published on the City web site to report illegal dumping and/or discharge.

The City provides educational outreach on yard care techniques protective of water quality through the WRIA 9 salmon habitat recovery program. Staff gave a presentation to a community group on stormwater and illicit discharges such as yard and pet waste during the permit period. A mailing with information on proper yard waste disposal and potential impacts to Puget Sound was sent to selected residents adjacent to the Sound and associated bluffs.

The City provides BMPs on its website for the use and storage of pesticides and fertilizers. Section 18.86.240 of the Des Moines Municipal Code (DMMC) covers proper use of these materials, which are governed by state and federal regulations. A surface water ordinance, which addresses the entire City surface water system, was adopted in 2009. The ordinance has been codified as Chapter 11.20 DMMC and is made available on the website and upon request.

The City provides BMPs on our website and through brochures for auto repair and maintenance. The City adopted King County's BMP for carpet cleaning in 2009; and this BMP can be found on King County's website. Also, a copy of this manual is available at the Public Works building. The City has updated this section of the surface water code to meet the permit requirements; Section 18.86.240 DMMC covers the requirements for these activities which are governed by state and federal regulations. The section, which previously applied to critical aquifer recharge areas only, now applies to all surface waters throughout the City including Puget Sound and groundwater. The updated version is available on the website.

The City Department of Planning, Building and Public Works allows low impact development techniques as provided for in the King County Surface Water Design Manual when considering options for stormwater control. The City's

Comprehensive Plan has conservation and water management strategies which include a stormwater management program. The goals are to emphasize educational programs and Best Management Practices to protect and improve surface and ground water quality.

The City inspects and maintains all publicly owned stormwater management facilities. There are, however, privately owned facilities located on multi-family and commercial properties, which are maintained by those owners. Since 2009, the City has provided information regarding maintenance of these systems to the owners/managers of the private systems. Furthermore, every first quarter of the year, owners of all private systems built after February 2007 are notified that an annual inspection is required.

The City has established a Surface Water Management Program which is administered by the Surface Water Management Division. The City has adopted the 2009 King County Surface Water Design Manual for technical standards for stormwater site and erosion control plans.

Low impact development techniques, including site design, pervious paving, and the retention of forests and mature trees are techniques allowed from the King County Surface Water Design Manual.

Stormwater treatment and flow control BMPs are taken from the King County Surface Water Design Manual.

b. Measurement:

The City will be collaborating with King County and other agencies within the county to measure the understanding and adoption of the targeted behaviors among the targeted audience. Citizen participation and involvement in volunteer activities and stewardship programs is also a measure of City success in education and outreach efforts.

The City is has focused on charity car wash runoff and conducting public education on illicit discharges. In order to keep off soapy water generated by car washing, the City has purchased six car-wash-kits to lend to Des Moines charity carwash organizations at no cost. As for public education, the City continues to maintain its existing program - City Currents newsletters and brochures- to target its audience and the message is coordinated to be consistent with the regional messaging "Puget Sound Starts Here" Campaign.

c. Tracking:

The City's NPDES Coordinator will track records of public education and outreach activities. The NPDES Coordinator is responsible for responding to and documenting all reports made by phone and through the website. Citizen participation and involvement in volunteer activities and stewardship programs also provide a means of tracking activities by keeping a record of

those people involved and the details of the activities that have taken place and the outcomes of those specific activities and programs.

## **Section 2: Public Involvement and Participation**

### **2.1 Permit Requirements (S5.C.2)**

The City's SWMP will include ongoing opportunities for public involvement through advisory councils, watershed committees, participation in developing rate-structures, stewardship programs, environmental activities or other similar activities. The City will comply with applicable State and local public notice requirements when developing its SWMP.

The City will take the following minimum measures:

a. Opportunities for Public Participation:

No later than February 15, 2008, the City will create opportunities for the public to participate in the decision-making processes involving the development, implementation and update of the City's entire SWMP. The City will develop and implement a process for consideration of public comments on its SWMP.

b. Availability of Documents:

The City will make its SWMP Plan, the annual report required under S9.A of the City's Permit, and all other submittals required by the Permit, available to the public. The annual report and the SWMP that was submitted with the latest annual report will be posted on the City's website.

### **2.2 Program Description**

The City has developed the "Friends of Des Moines Creek" volunteer organization and stewardship program, in which citizens are involved in maintaining and enhancing the habitat along Des Moines Creek. The City is involved in the WRIA 9 salmon habitat recovery which also offers volunteer and stewardship opportunities. Those meetings are open to the public with a schedule made available online. Citizens are encouraged to become a volunteer of any Puget Sound watershed through the King County watershed website. Public feedback may be made at any time online or at City Hall.

a. Opportunities for Public Participation:

The City provides opportunity for public comment/input on the SWMP through making the SWMP more accessible and allowing for comments to be submitted. The City also solicits information from public involvement programs.

The City continues to reach out to citizens to volunteer in storm drainage stenciling.

b. Availability of Documents:

The annual report for this permit is due every March 31st; and the annual report and SWMP will be posted on the City website ([www.desmoineswa.gov](http://www.desmoineswa.gov)) once it is updated.

### **Section 3: Illicit Discharge Detection and Elimination (IDDE)**

#### **3.1 Permit Requirements (S5.C.3)**

The City' SWMP includes an ongoing program to detect and remove illicit connections, discharges as defined in 40 CFR 122.26(b)(2), and improper disposal, including any spills not under the purview of another responding authority, into the municipal separate storm sewers owned or operated by the City. The City implemented the illicit discharge detection and elimination program prior to the August 15, 2011 deadline.

The City is required to take the following minimum measures:

- a. Develop a municipal storm sewer system map.
- b. Develop and implement an ordinance or other regulatory mechanism to effectively prohibit non-stormwater, illegal discharges, and/or dumping into the City's municipal separate storm sewer system to the maximum extent allowable under State and Federal law.
- c. Develop and implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City's municipal separate storm sewer system.
- d. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.
- e. Adopt and implement procedures for program evaluation and assessment, including tracking the number and type of spills or illicit discharges identified; inspections made; and any feedback received from public education efforts.
- f. Provide appropriate training for municipal field staff on the identification and reporting of illicit discharges into MS4s.



### 3.2 Program Description

#### City of Des Moines Illicit Discharge Detection and Elimination Program:

a. Development of MS4 Map:

The City Planning, Building and Public Works Department maintains a Geographical Information System (GIS) map that shows existing City-owned stormwater systems throughout the City. In 2009, the City began locating all storm drains via hand-held computer device 'ArcPad' Unit. As of 2011, the City has substantially completed mapping of the municipal separate storm sewer system (MS4). The goal is to develop and maintain a GIS-based municipal storm sewer system map that will provide locations and description of all known municipal storm drainages, including outfalls, and receiving waters. All new construction is field surveyed and the map is continuously updated. The City also maintains a series of maps found in the City's Comprehensive Plan and/or a link through the Planning Division available to Ecology and the public online at any time. These maps include Land Use Areas and Critical Areas such as Frequently Flooded Areas, Surface Water, and Wetlands and Drainage Basins. Paper copies are also available upon request. All private connections made after the permit effective date have been added to the City's GIS system. This map will be updated as additional information becomes available or new additions or deletions made to the existing infrastructure.

b. IDD&E Ordinance:

The City adopted an IDDE Ordinance in compliance with the permit requirement, effective September 12, 2009. Ordinance No. 1463 can be viewed at the City's website at the following link: (<http://www.desmoinesarchives.us/documents/ordinances/DESMCITO200908131463.pdf>) A hard copy is also available upon request. This ordinance was codified as Chapter 11.20 of the Des Moines Municipal Code.

c. Ongoing IDD&E Program:

- i. The City has evaluated high priority areas that are likely to generate illicit discharges. The site selection is based on land use and associated business/industrial activities; documented past complaints; and storage facilities that have potential for contaminating stormwater.
- ii. Three receiving water bodies (Des Moines creek, Barnes Creek, and Massey Creek) were prioritized for visual inspection, on a standard scale of 1-3, from low to high, respectively. The field assessments of three water bodies were conducted in 2011, using *"Illicit Discharge Detection*

*and Elimination: A Guidance Manual for Program Development and Technical Assessments"*, Center for Watershed Protection, October 2004. During the assessment, outfall locations were verified and screened for illicit discharges, and newly discovered outfalls were mapped.

- iii. When the City or the investigations agency determines surface water quality pollution has occurred, a notice is sent to the property owner stating the problem be remedied within a time frame listed in our code. The cleanup and enforcement depend on severity of the spill.
- iv. The City is currently developing IDDE procedures to characterize the nature and environmental threat posed by illicit discharges, also tracing the source of illicit discharges, and procedures for eliminating the source of discharges.
- v. The existing IDDE ordinance authorizes the City to notify of appropriate authorities, property owners, for eliminating the discharge, follow-up inspections, and escalating enforcement and legal actions if the discharge is not abated. Also, the City has the right to disconnect any illegal connection.

d. Public Information:

The City encourages citizens to call the Public Works Department at 206-870-6869; after hours cell 206-550-5612 or police department non-emergency number at 206-878-3301 to report illicit discharges and spills. The Municipal Code, Shoreline Master Program and Comprehensive Plan are available on the City website. Also refer to Section 1: Public Education and Outreach for information on illegal discharges and improper disposal of waste. In 2010, the City started using social media such as the public access channel and local news paper to reach out to the community on pollution prevent strategies/BMPs.

e. Program Evaluation and Assessment:

City staff will continue to evaluate and improve the IDDE program based on experience, lessons learned, and feedback from public education efforts.

f. Training:

- i. The City's NPDES Coordinator is the lead for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections. The City has provided training to

staff that maintains surfacewater, street, parks and recreation. This requirement meets the deadline permit date.

- ii. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. All training records (including course information and the staff trained) will be documented and maintained.

## **Section 4: Controlling Runoff from New Development, Redevelopment and Construction Sites**

### **4.1 Permit Requirements (S5.C.4)**

The City will develop, implement, and enforce a program to reduce pollutants in stormwater runoff to its MS4 from new development, redevelopment and construction site activities. This program will be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale. The program will apply to private and public development, including roads. The “Technical Thresholds” in Appendix 1 of the City’s Permit will be applied to all sites 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale.

The City is required to take the following minimum measures:

- a. Develop an ordinance or other enforceable mechanism that addresses runoff from new development, redevelopment, and construction site projects. Pursuant to S5.A.2. of the City’s Permit, in adopting this ordinance or other regulatory mechanism, existing City requirements to apply stormwater controls at smaller sites, or at lower thresholds than required pursuant to this section, will be retained.
- b. Conduct a permitting process with plan review, inspection and enforcement capability to meet the standards listed in (i) through (iv) below, for both private and public projects, using qualified personnel (as defined in the *Definitions and Acronyms* section of the Permit). At a minimum, this program will be applied to all sites that disturb a land area one acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale.
- c. Implement a program to include provisions to verify adequate long-term operation and maintenance (O&M) of post-construction stormwater facilities and BMPs that are permitted and constructed pursuant to (B) above.
- d. Implement a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities will be maintained. The City will keep

records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre that are approved after February 15, 2007.

- e. The City will make available copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. The City will continue to enforce local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology.
- f. No later than August 15, 2009, the City will verify that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. Follow-up training will be provided as needed to address changes in procedures, techniques or staffing. The City will document and maintain records of the training provided and the staff trained.

## **4.2 Program Description**

City of Des Moines, Controlling Runoff from New Development, Redevelopment and Construction Sites:

- a. Ordinance:
  - i. The City has adopted the 2009 King County Surface Water Design Manual (KCSWDM) as the Surface Water Design Manual for the City of Des Moines:  
DMMC 18.86.330 Surface Water Design Manual – Pursuant to RCW 35.21.180 the King County, Washington "Surface Water Design Manual," including all subsequent revisions, is adopted by reference as the "Surface Water Design Manual for the City of Des Moines." A current copy of the King County, Washington "Surface Water Design Manual" adopted by reference in this section shall be maintained on file in the office of the city manager or designee and shall be available for public inspection. [Ord. 1400 § 43, 2007]. This Manual is used as an enforceable mechanism that addresses runoff from new development, redevelopment, and construction sites.
  - ii. The City has chosen to use the site planning process and BMP selection and design criteria in the King County Surface Water Design Manual.
  - iii. The City Planning, Building and Public Works Department, Surface Water Management Division has the legal authority, through the

approval process for new development, to inspect private stormwater facilities prior to connection to the City's system: DMMC 11.08.050 Authority.

- iv. The City Surface Water Management Program has provisions to allow non-structural preventive actions and source reduction approaches such as Low Impact Development Techniques (LID) measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation. Also, the City has completed a report on LID implementation that identifies barriers that hinder the implementation of LID techniques in Des Moines and suggests measures to address those barriers.
- v. The City does not allow construction sites to apply for the "Erosivity Waiver". Every Construction project requires a SWPPP and set of plans to be provided to the City for review and approval by a design review engineer before a permit is issued.

b. Permitting Process:

The City has a permitting process with plan review, inspection and enforcement capability to meet the standards listed in i. through iv. below, for both private and public projects, using qualified personnel. This process is applied to all development resulting in 2,000 square feet or more of new impervious surface on previously undeveloped or developed property.

- i. The Public Works Department conducts a drainage review on all stormwater site plans for proposed development activities resulting in 2,000 square feet in new impervious area or modification of an existing system.
- ii. The Public Works Department inspects, prior to clearing and construction, all known development sites that have high potential for sediment transport.
- iii. The Public Works Department inspects all permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. The City enforces when necessary based on inspection.
- iv. The Public Works Department inspects all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs.
- v. Compliance with the inspection requirements in (ii), (iii) and (iv) above will be determined by the presence and records of an established inspection program designed to inspect all sites and achieving at least 95% of scheduled inspections.

- vi. The Public Works Department has an enforcement strategy developed and implemented to respond to issues of non-compliance with the City requirements as determined upon inspection.
- vii. The City does not allow construction sites to apply for the “Erosivity Waiver”.
- c. Long-term Operation and Maintenance:
  - i. The 2009 King County Surface Water Design Manual (Core Requirement #6 – Maintenance and Operations) clearly identifies the party responsible for maintenance of drainage facilities. The City has adopted a new ordinance that mandates property owners to provide a long-term operation and maintenance manual before sign off. This requirement was met ahead of deadline in 2009 instead of February 2010. The new ordinance identifies the party responsible for maintenance, and includes provisions for city staff inspection and enforcement of the facilities in accordance with the requirements in (ii) through (iv) below. The City currently maintains all public-owned facilities but does not maintain facilities located on multi-family and commercial properties that are privately owned, unless a maintenance agreement has been made with the private party.
  - ii. The City has adopted the 2009 King County Surface Water Design Manual for maintenance standards for its publicly owned facilities [DMMC 18.86.330].
    - (1) Beginning no later than August 15, 2009, the City conducts annual inspections of all public facilities and all private facilities constructed after the February 15, 2007 to determine if maintenance is required. Exceeding the maintenance standard between the period of inspections is not a violation.
    - (2) Unless there are circumstances beyond the City’s control, maintenance will be performed:
      - Within 1 year for wet pool facilities and retention/detention ponds
      - Within 6 months for typical maintenance.
      - Within 9 months for maintenance requiring revegetation.
      - Within 2 years for maintenance that requires capital construction of less than \$25,000.
  - iii. The City has completed a condition assessment of all stormwater treatment and flow control facilities that are City owned and operated and all private facilities constructed after February 15, 2007.

Thereafter, annual inspections are been made on these facilities on an annual basis.

- iv. Inspections of all new stormwater systems for new development are completed by a Stormwater Technician. The inspection identifies maintenance needs and enforcement compliance with maintenance standards as needed. Inspections are done before the developer has their bond released. It is required that stormwater retention/detention facilities, control structures, storm drainage pipes and catch basins be jetted and cleaned prior to acceptance. After the stormwater system is built, the contractor is required to install catch basin protection in order to prevent solids from entering the system. Beginning no later than February 15, 2009, inspections of the stormwater systems are performed every 6 months during the period of heaviest house construction (i.e. 1-2 years following subdivision approval).

d. Record Keeping:

The City Surface Water Management Program has in place a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records. Records of maintenance inspections and maintenance activities are maintained. The City inspects and keeps records of all new developed property.

e. Availability of NOIs:

The City Community Development Department will make available copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment. The City enforces local ordinances controlling runoff from sites that are also covered by stormwater permits issued by Ecology

f. Training:

The City's Surface Water Management Division and Planning, Building and Public Works Department are responsible for implementing the Surface Water Management Program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement. Currently all our staff has been trained in accordance with the permit requirements.

## **Section 5: Pollution Prevention and Operation and Maintenance for Municipal Operations**

### **5.1 Permit Requirements (S5.C.5)**

By February 15, 2010, the City will develop and implement an Operations and Maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The City is required to take the following minimum measures:

- a. Establish maintenance standards that are as protective, or more protective, of facility function as those specified in Chapter 4 of Volume V of the 2005 *Stormwater Management Manual for Western Washington*. For facilities which do not have maintenance standards, the City will develop a maintenance standard.
- b. General Inspections:  
Annual inspection of all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins, and taking appropriate maintenance actions in accordance with the adopted maintenance standards. The annual inspection requirement may be reduced based on inspection records.
- c. Post-Storm Inspections:  
Spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major (greater than 24-hour-10-year recurrence interval rainfall) storm events. If spot checks indicate widespread damage/maintenance needs, inspect all stormwater treatment and flow control facilities that may be affected. Conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the inspections.
- d. Catch Basins and Inlet Inspections:  
Inspection of all catch basins and inlets owned or operated by the City at least once before the end of the City's Permit term. Clean catch basins if the inspection indicates cleaning is needed to comply with maintenance standards established in the 2005 *Stormwater Management Manual for Western Washington*. Decant water will be disposed of in accordance with Appendix 6 of the City's Permit, *Street Waste Disposal*.
- e. Compliance:  
Compliance with the inspection requirements in A, B, C and D. above will be determined by the presence of an established inspection program designed to inspect all sites and achieving inspection of 95% of all sites.



f. Reduction of Stormwater Impacts:

Establishment and implementation of practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or maintained by the City, and road maintenance activities conducted by the City.

g. Policies and Procedures:

Establishment and implementation of policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the City and subject to the City's Permit, including but not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities.

h. Training:

Develop and implement an on-going training program for employees of the City whose construction, operations or maintenance job functions may impact stormwater quality. The training program will address the importance of protecting water quality, the requirements of the City's Permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training will be provided as needed to address changes in procedures, techniques or requirements. The City will document and maintain records of training provided.

i. Special Facility Requirements:

Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to the City's Permit that are not required to have coverage under the Industrial Stormwater General Permit. Implementation of non-structural BMPs will begin immediately after the pollution prevention plan is developed. A schedule for implementation of structural BMPs will be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP will include periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP.

j. Record Keeping:

Records of inspections and maintenance or repair activities conducted by the City will be maintained in accordance with S9 of the City's Permit, *Reporting Requirements*.

## 5.2 Program Description

City of Des Moines Pollution Prevention and Operation and Maintenance for Municipal Operations:

a. Maintenance Standards:

The City has adopted the King County Surface Water Design Manual for maintenance standards for all publicly owned facilities: DMMC 18.86.330 Surface water design manual.

- (1) The purpose of the King County Surface Water Design Manual is to allow for annual inspections to determine if maintenance is required. Exceeding the maintenance standard between the period of inspections is not a violation.
- (2) Unless there are circumstances beyond the City's control, maintenance will be performed:
  - Within 1 year for wet pool facilities and retention/detention ponds
  - Within 6 months for typical maintenance.
  - Within 9 months for maintenance requiring revegetation.
  - Within 2 years for maintenance that requires capital construction of less than \$25,000.

The City will document the circumstances if they are beyond their control.

b. General Inspections:

The City Stormwater Technician performs annual inspections of all stormwater treatment and flow control facilities that are City owned and operated and takes appropriate maintenance actions in accordance with the adopted King County Surface Water Design Manual. The public operated stormwater retention/detention ponds are currently inspected and maintained twice a year. Last year, some of the City owned stormwater facilities such as vaults, manholes, and tanks are now to be placed under Reduced Frequency Inspection, meaning bi-annual inspection.

c. Post-Storm Inspections:

The City Stormwater Technician performs spot checks of potentially damaged permanent treatment and flow control facilities after major storm events. If spot checks indicate widespread damage/maintenance needs, all facilities that may be affected are then inspected. Repairs and maintenance actions are taken immediately upon inspection if required.

d. Catch Basins and Inlet Inspections:

Inspection of all catch basins and inlets owned and operated by the City is done by zone. There are 7 zones in which each catch basin and inlet is

inspected and cleaned/vactored if needed. The Downtown zone is inspected annually and the more rural and/or less problematic areas are inspected every 2 years. The City does keep a record of the problematic areas and specific catch basins and inlets that require more frequent cleaning (i.e. after storms and sanding). The City is in the process of implementing a GIS system for determining a more detailed inspection schedule. Decant water is disposed of at the King County Stormwater Decant Facility in Kent and solids are hauled to the Allied Waste Regional Disposal Company at 54 South Dawson Street, Seattle .

e. Compliance:

The City Surface Water Management Program has an established inspection program designed to inspect all sites.

f. Reduction of Stormwater Impacts:

The department has developed a City Fleets and Facilities SWPPP that will mitigate stormwater impacts associated with runoff from public streets, parking lots, roads and parks, as well as road maintenance activities conducted by the City. Activities addressed include: pipe and culvert cleaning, ditch maintenance, street cleaning, road repair and resurfacing, snow and ice control, maintaining roadside areas and vegetation, and dust control.

g. Policies and Procedures:

The City Surface Water Management Program has established policies and best management practices from the King County Surface Water Design Manual to reduce pollutants in discharges resulting from the following activities:

- Sediment and erosion control.
- Landscape maintenance and vegetation disposal.
- Trash management.

The City has modified policies and procedures regarding the maintenance and operation of lands owned or maintained by the City in an effort to reduce the discharge of stormwater pollutants. Procedures that have been addressed include: application of fertilizers, pesticides and herbicides, sediment and erosion control, landscape maintenance, vegetation disposal, and cleaning and maintenance of building exteriors.

h. Training:

The City Planning, Building and Public Works Department has implemented an ongoing training and certification program for all staff whose job functions may impact stormwater quality.

i. Special Facility Requirements:

The City's Planning, Building and Public Works Department developed and implemented a Stormwater Pollution Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City. The SWPPP includes periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMPs.

j. Record Keeping:

The City Planning, Building and Public Works Department maintains records of inspections and maintenance or repair activity in accordance with S9 of the City's Permit, *Reporting Requirements*.

## **Section 6: Monitoring**

### **6.1 Permit Requirements (S8)**

- A. Permittees are not required to conduct water sampling or other testing during the effective term of this Permit, with the following exceptions:
  - 1. Any water quality monitoring required for compliance with TMDLs, pursuant to section *S7 Compliance with Total Maximum Daily Load Requirements* and Appendix 2 of this Permit, and
  - 2. Any sampling or testing required for characterizing illicit discharges pursuant to section S5.C.3 or S6.D.3 of this Permit.
- B. The Permittee will provide the following information in each annual report:
  - 1. A description of any stormwater monitoring or studies conducted by the Permittee during the reporting period.
  - 2. An assessment of the appropriateness of the BMPs identified by the Permittee for each component of the SWMP; and any changes made, or anticipated to be made, to the BMPs that were previously selected to implement the SWMP, and why.
  - 3. Information required pursuant to S8.C.2 below.
- C. Preparation for future, long-term monitoring
  - 1. All cities, towns and counties shall prepare to participate in the implementation of a comprehensive long-term monitoring program. The monitoring program will include two components: stormwater monitoring and targeted Stormwater Management Program (SWMP) effectiveness monitoring. The results of the monitoring program will be used to support the adaptive management process and lead to refinements of the SWMP.

## **6.2 Program Description**

### Preparation for future, long-term monitoring

The City has identified two outfalls (representing commercial and high-density residential land uses) where permanent sampling stations could be established in the future.

Two suitable questions concerning SWMP effectiveness have been developed, and monitoring methods have been identified to attempt to answer these questions.

## **Section 7: Reporting Requirements**

### **7.1 Permit Requirements (S9)**

- A. No later than March 31 of each year beginning in 2008, each Permittee shall submit an annual report. The reporting period for the first annual report will be from the effective date of this permit through December 31, 2007. The reporting period for all subsequent annual reports will be the previous calendar year.
- B. Two printed copies and an electronic (PDF) copy of each document shall be submitted to Ecology.
- C. Each Permittee is required to keep all records related to the Permit and the SWMP for at least five years. Except for the requirements of the annual reports described in this permit, records will be submitted to Ecology only upon request.
- D. Each Permittee shall make all records related to the Permit and the Permittee's SWMP available to the public at reasonable times during business hours. The Permittee will provide a copy of the most recent annual report to any individual or entity, upon request.
- E. Prepare an annual report to include a copy of the Permittee's current Stormwater Management Program and Appendix 3 – *Annual Report Form for Cities, Towns, and Counties*.

### **7.2 Program Description**

City of Des Moines Reporting:

- A. No later than March 31 of each year beginning in 2008, the City will submit an annual report. The reporting period for the first annual report will be from the effective date of this permit through December 31, 2007. The reporting period for all subsequent annual reports will be the previous calendar year.
- B. The City will submit to Ecology two printed copies and an electronic (PDF) copy of each document. All submittals will be delivered to:

Department of Ecology  
Water Quality Program  
Municipal Stormwater Permits  
P.O. Box 47696  
Olympia, WA 98504-7696

- C. The City will keep all records related to the Permit and the SWMP for at least five years. Except for the requirements of the annual reports described in this permit, records will be submitted to Ecology only upon request.
- D. The City will make all records related to the Permit and the City's SWMP available to the public at reasonable times during business hours. The City will provide a copy of the most recent annual report to any individual or entity, upon request.
  - 1. A reasonable charge will be assessed by the City for making photocopies of records.
  - 2. The City will require reasonable advance notice of intent to review records related to this Permit.
- E. The annual report for cities, towns, and counties  
Each annual report will include the following:
  - 1. A copy of the City's current Stormwater Management Program as required by S5.A.2.
  - 2. Submittal of Appendix 3 – *Annual Report Form for Cities, Towns, and Counties*, which is intended to summarize the City's compliance with the conditions of the permit, including:
    - a. Status of implementation of each component of the SWMP in section S5 *Stormwater Management Program for Cities, Towns and Counties*.
    - b. An assessment of the City's progress in meeting the minimum performance standards established for each of the minimum control measures of the SWMP.
    - c. A description of activities being implemented to comply with each component of the SWMP, including the number and type of inspections, enforcement actions, public education and involvement activities, and illicit discharges detected and eliminated.
    - d. The City's SWMP implementation schedule and plans for meeting Permit deadlines, and the status of SWMP implementation to date. If permit deadlines are not met, or may not be met in the future, the following will be included:

reasons why, corrective steps taken and proposed, and expected dates that the deadlines will be met.

- e. A summary of the City's evaluation of its SWMP, according to sections S5.A.4. and S8.B.2.
  - f. If applicable, notice that the MS4 is relying on another governmental entity to satisfy any of the obligations under this permit.
  - g. Updated information from the prior annual report plus any new information received during the reporting period, pursuant to S8.B.2. above.
  - h. Certification and signature pursuant to G19.D, and notification of any changes to authorization pursuant to G19.C.
3. The City will include with the annual report, notification of any annexations, incorporations or jurisdictional boundary changes resulting in an increase or decrease in the City's geographic area of permit coverage during the reporting period, and implications for the SWMP.